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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/712,878	11/14/2000	Mark Rice	3123-362	9335

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EXAMINER

WONG, KIN C

ART UNIT PAPER NUMBER

2651

DATE MAILED: 02/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/712,878

Applicant(s)

RICE ET AL.

Examiner

K. Wong

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 06 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

The formal drawings have been approved by the draftsperson.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims (1-6,9-36 and 40-41) are rejected under 35 U.S.C. 102(b) as being anticipated by Rowan et al (5781363).

Regarding claim 35: Rowan et al discloses a disk drive (element 100 in figure 1 of Rowan et al) apparatus including:

a base (or housing as described in col. 4, line 51-52 of Rowan et al);

a magnetic storage disk (element 102 in figure 1) rotatably mounted to the base;

an actuator arm (element 104 in figure 1 - see col. 4, lines 19-22) pivotally mounted to the base;

a cam (or ramp - see col. 4, lines 49-50 of Rowan et al);

a transducer head (element 108 and as depicted in figure 1) mounted to a first end of the actuator arm, wherein the transducer head is capable of reading information from and writing information to the magnetic storage disk (in col. 4, lines 23-28 of Rowan et al);

a voice coil motor (element 110 in figure 1) for moving the first end of the actuator arm radially across the magnetic storage disk from a first position in which the actuator arm is engaged with the cam to a second position in which the actuator arm is positioned such that the transducer head is capable of addressing information stored on a surface of the magnetic disk;

a controller (element 114 in figure 1) for producing an output signal for actuating the voice coil motor to move the transducer head from the first position to the second position, wherein the voice coil motor is provided a first amount of electrical power over a first period of time to move the actuator arm, wherein following the first period of time plus an additional period of time a back electromotive force of the voice coil motor is sampled to determine a velocity of the transducer head, wherein the voice coil motor is provided with a second amount of electrical power over a second period of time to move the actuator arm, and wherein the first period of time is not equal to the second period of time (in col. 3, lines 7-23; col. 3, lines 37-51; and col. 7, line 1 to col. 8, line 43 of Rowan et al). The limitations of the claim considering satisfied because Rowan et al discloses a velocity control during the loading/unloading of the head.

Regarding claim 36: Rowan et al teaches that wherein the first and second amounts of electrical power are equal (in col. 3, lines 13-19 of Rowan et al).

Regarding claim 40: Rowan et al teaches that wherein the controller comprises a proportional-integral controller (in col. 2, lines 33-55 where Rowan et al describes proportional-integral process I the controller).

Regarding claim 41: Rowan et al teaches that wherein the voice coil motor is provided with a third amount of electrical power over a third period of time to move the actuator arm,

wherein the third period of time is not equal to the first and second periods of time (in col. 9, line 25 to col. 10, line 28 of Rowan et al).

Regarding claims 1-6 and 9-34: the method claims (1-6 and 9-34) are drawn to the method of using the corresponding apparatus claimed in claims (35-36 and 40-41). Therefore method claims (1-6 and 9-34) correspond to apparatus claims (35-36 and 40-41) and are rejected for the same reasons of anticipation as used above.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims (7-8 and 37-38) rejected under 35 U.S.C. 103(a) as being unpatentable over Rowan et al (5781363) in view of Cameron et al (6282049).

Regarding 37-38: the reason for Rowan et al is stated in above. Rowan et al is silent on a counter for controlling the generating amount of electrical power from a table (or profile). Cameron et al is relied on for the teachings of a counter for controlling the amount of electrical power that respectively to the profile (see col. 7, lines 30-67 of Cameron et al).

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the actuator (VCM) power of Rowan et al with a counter controlled power

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output for the actuator as taught by Cameron et al. The rationale is as follows: one of ordinary skill in the would have been motivated to prevents or reduces the acoustic noise in the actuator with a controlled power profile a suggested in col. 3, lines 36-40 of Cameron et al.

Regarding claims 7-8: the method claims (7-8) are drawn to the method of using the corresponding apparatus claimed in claims (35-41). Therefore method claims (1-27) correspond to apparatus claims (37-38) and are rejected for the same reasons of obviousness as used above.

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Albrecht et al (6316898) and Boutaghou et al (5936788) are cited for loading/unloading power control.

6. Any inquiry concerning this communication should be directed to K. Wong whose telephone number is (703) 305-7772.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, D. Hudspeth, can be reached on (703) 308-4825. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Customer Service whose telephone number is (703) 306-0377.

lkw

9 Feb 03

Regina N. Holder
REGINA N. HOLDER
PRIMARY EXAMINER